

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 11-18 are pending. By this Amendment Claims 6-10 are canceled, Claims 11 and 16 are amended to correct informalities and new Claims 17 and 18 are added. No new matter has been added.

Claims 11-16 are rejected under 35 U.S.C. § 112, first and second paragraphs. Claims 11 and 16 are amended to obviate this rejection.

The Office Action rejects Claims 6, 8 and 9 under 35 U.S.C. §102(e) over USP 6,555,779 to Obana et al., Claims 6 and 8-10 under 35 U.S.C. § 102(e) over U.S. Pub. No. 2003/0038120 to Minamida et al., Claim 7 under 35 U.S.C. §103(a) over Obana et al. in view of USP 4,475,788 to Tomassini et al. and Claim 10 under 35 U.S.C. §103(a) over Obana et al. in view of USP 6,608,285 to Lefebvre et al. These rejections are moot due to the cancellation of Claims 6-10.

Before considering the pending claims, it is believed that a brief review of the subject matter of the independent claims would be helpful.

Independent Claim 11 includes, *inter alia*, two pipes configured to eject a protection gas passing through the head and ending up in chambers located before and behind the first and second central drillings in the longitudinal direction and extending over a sufficient length in the longitudinal direction to completely cover a molten pool generated when the installation is in use.

Independent Claim 16 includes, *inter alia*, a method including blowing a protection gas through the pipes into the chambers, lowering the head into the chamfer joint, advancing the head along the chamfer joint and creating a molten pool under the head, the molten bath being completely covered by the chambers.

Neither Obana et al. nor Minamida et al. disclose chambers located before and behind central drillings in the longitudinal direction and extending over a length in the longitudinal direction as in independent Claims 11 and 16. Thus, neither Obana et al. nor Minamida et al. can cover the entire extent of the molten pool.

With respect to new Claims 17 and 18, neither Obana et al. nor Minamida et al. disclose an underside plate perforated in front of the chambers as in Claim 17 nor chambers elongated in the longitudinal direction as in Claim 18.

Tomassini et al. and Lefebvre et al. do not provide the deficiencies of Obana et al. and Minamida et al. discussed above.

The dependent claims are allowable for at least the reasons discussed above and for the individual features they recite. Withdrawal of the rejection of the dependent claims is respectfully requested.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. A Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

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